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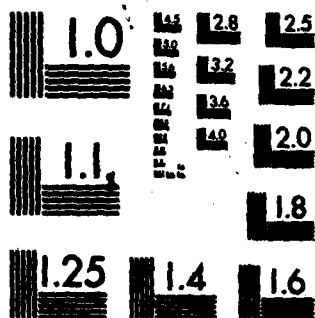
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**HISTORICAL RESEARCH AND DEVELOPMENT
INFLATION INDICES FOR
ARMY FIXED AND ROTOR WINGED AIRCRAFT**

WILLIAM CROSBY, ECONOMIST

ANNUAL REPORT

MARCH 1983

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

**US ARMY AVIATION RESEARCH AND DEVELOPMENT COMMAND
DIRECTORATE FOR PLANS AND ANALYSIS
DATA ANALYSIS AND CONTROL DIVISION
ST. LOUIS, MO 63120**



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21. ABSTRACT (Continue on reverse side if necessary and identify by block number) This Technical Memorandum is a continuation of previous efforts to develop the necessary rationale and methodology needed in order to construct historical inflation indices, in the Research and Development (R&D) area, relative to Army aircraft. The R&D historical indices, and the sub-indices from which they are derived, are presented in the appendices to this report for the period FY68 through FY82. A computer program is utilized to make the necessary mathematical calculations. <i>over</i>		

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20. ABSTRACT (Continued).

✓ Data sources of this report were the Office of Personnel Management (OPM) and the Bureau of Labor Statistics (BLS). OPM supplied data on government salaries. BLS furnished data on industry salaries and thirteen (13) different materials.

② The computer program prints the R&D historical inflation indices and sub-indices by fiscal year as shown in Appendices A, C, D and E. ↑

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MARCH 1983

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DIRECTORATE FOR PLANS AND ANALYSIS
4300 GOODFELLOW BOULEVARD
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I. INTRODUCTION.

A. This report is the fourth revision to the AVRADCOM Historical Research and Development Inflation Indices for Army Fixed and Rotary Winged Aircraft. The report is provided primarily for continuity purposes. As discussed in Section 2, current Department of the Army (DA) policy requires the use of Department of Defense (DOD) historical inflation indices unless a program specific waiver has been allowed.

B. The basic model used in the development of previous editions has been retained. Due to changes in the Producer Price Indices (PPI), some minor adjustments were necessary. The changes are indicated in Appendix B. The impact of these changes is minimal due to the labor intensive nature of the R&D Indices. In addition, the series that changed only made small contributions to the overall material sub-index.

C. Appendices A-D provide backup calculations to the R&D Indices which are presented in Appendix E.

II. APPLICABILITY.

A. Current Department of the Army (DA) policy requires the use of DOD Historical Inflation Indices, unless a waiver has been obtained. For programs using Selected Acquisition Reports (SARs), the only alternative is a system peculiar index, which must be approved by OSD. Other programs can use these indices, or develop a system peculiar index, with approval from DARCOM.

B. Appendix F, contains a modified version of the OSD Historical Inflation Indices, for R&D and Civilian Pay. The indices are provided in a form to facilitate comparison with the R&D Indices presented in Appendix E.

C. Prior to developing an Aviation system peculiar R&D Inflation Index, this office should be contacted.

III. METHODOLOGY

A. Labor Costs - Appendix A.

Due to the nature of RDT&E effort, labor costs are assumed to be most accurately reflected by professional engineers and technicians. The industry component of the Labor Subindex is derived from the Bureau of Labor Statistics (BLS) Annual Bulletin, National Survey of Professional, Administrative, Technical and Clerical Pay, March 1982. The industry category comprises 60% of the Labor Subindex.

2. The Government Labor Index was updated based on pay increases to the GS schedule. This index represents 40% of the Labor Subindex.

3. Appendix A contains the Government and Industry labor indexes, (based in 1968). The Labor Inflaters for both Government and Industry are calculated from the indexes. Multiplying labor cost stated in a prior year's dollars, by the appropriate inflator, would adjust the cost to a 1982 base. The Labor Inflator contained in Appendix D, represents a 60/40 weighting of the Industry and Government Inflators from Appendix A.

B. Material Costs - Appendices B, C and D.

1. The Material Subindex measures changes in the prices of a group of commodities assumed to accurately reflect the type of material inputs used in Army Aviation R&D efforts. The metal commodities are: aluminum, nickel, titanium, cobalt, steel, copper alloys and iron alloys. The non-metal commodities are: fiberglass, plastics, natural rubber, butyl rubber, neoprene, teflon, tungsten-carbide, polyurethane, epoxy resin, Romax and Novolac.

2. The list of materials was matched to representative FPI series. Appendix B lists the names and code numbers of the FPI series used to make up the Material Subindex. Appendix B also identifies the weighting factors assigned to the various FPI series when making up the Material Subindex.

3. The Commodity Indexes in Appendix C were computed from the basic data identified in Appendix B.

4. The Commodity Inflators, Appendix D, were calculated from the commodity indexes. Similar to the Labor Inflators, they represent a factor for adjusting costs from prior base years to a 1982 base year.

5. The Material Inflator (Appendix E) is the weighted sum of all the Commodity Inflators.

C. Labor/Material Mix by RDT&E Program Category.

1. It is assumed that the earlier in the life cycle of project that research occurs, the less material will be used. Four historical indices were calculated and are presented in Appendix E. Each index represents a different mix of labor and materials.

2. The Research and Technology Laboratory Headquarters at Moffett Field, California, has suggested the following combinations of program category and labor/material mix: 6.1/6.2 Research, 5% material and 95% labor; 6.3 Research, 10% material and 90% labor; and 6.4 Research, 15% material and 85% labor. The 'Other' category presumes a mix of 25% material and 75% labor.

IV. COMPARATIVE ANALYSIS.

A. In FY 1982, the cost of labor rose faster than the cost of materials. As would be expected, the indexes reflected this fact; the more labor intense indexes showing the most increase. FY 1981 and FY 1982 reversed the trend of higher material inflation that had been the case from FY73 through FY80.

B. The material inflator registered a 2.1% increase in FY 1982, one of the smallest in the 15 year time frame of the series. Titanium and closed die forgings registered the largest increases at 9%. Three commodities fell in price, with cobalt down almost 38%.

C. The Industry Labor Category registered the largest increase at 10.12%. This contributed significantly to both the Labor Inflator and the values of the individual historical indices.

V. SUMMARY.

A. The Fourth Revision of the AVRADCOM Historical Research and Development Inflation Indices for Army Fixed and Rotary Winged Aircraft, follow the same methodology used in the earlier three versions.

B. Appendix E contains the four historical indices.

C. Use of these indices require prior DARCOM approval.

VI. REFERENCES.

- A. Army Aviation RDT&E Plan, US Army Research and Technology Laboratories, Ames Research Center, Moffett Field, California, October 1977.
- B. RDT&E Program Data Sheet, IL263201D447, December 1977, US Army AVRADCOM, Advanced Systems Technology and Integration Office.
- C. Design To Unit Production Cost (DTUPC) Report, Chapter entitled "Deflators," Hughes Helicopters, July 1978.
- D. Survey of Current Business, US Department of Commerce, Bureau of Economic Analysis August 1978.
- E. Defense Indicators, Washington, DC: US Department of Commerce, Bureau of Economic Analysis, March 1978, pgs 4 and 16.
- F. DeMilner, Lawrence E., "The Recent Behavior of Inflation," Federal Reserve Bulletin, Vol. 64, No. 7, pp. 521-530. Washington, DC: Division of Administrative Services, Board of Governors of the Federal Reserve System, July 1978.
- G. Shiskin, Julius, "A New Role for Economic Indicators," Monthly Labor Review. Washington, DC: US Department of Labor, Bureau of Labor Statistics, November 1977, pp. 3-5.
- H. Letter, subject: Office of the Secretary of Defense Historical Inflation Indices. Alexandria, VA: US Army Materiel Development and Readiness Command (DRCCP-ER), 4 October 1982.

VII. DEFINITIONS.

Appropriation Pattern:

The time-phased plan of a program's calendar year buys. (An Army-pattern usually covers a five (5) year period.) (Source: PREMIER Guide from DARCOM, 1967.)

Base Year:

Period (e.g., fiscal year) selected as a reference for derivation of index numbers or escalation factors.

Constant Year Dollars:

Always associated with a base year (e.g., FY 72 constant dollars). An estimate is said to be in constant dollars if costs for all work are adjusted so that they reflect the level of prices of the base year. When prior or future costs are stated in constant dollars, the figures given are adjusted to presume that the buying power of the dollar was the same and will continue to remain the same as the base year. (DOB Economic Analysis Handbook.)

Current Year or "Then Year" Dollars:

Current to the year the work is performed. When prior costs are stated in current year dollars, the figures given are the actual amounts paid out. When future costs are stated in current year dollars, the figures given are the actual amounts which will be paid including any amount due to future price changes. When making future estimates, it is necessary to initially assume a base buying power for each dollar (constant dollars) and then apply an escalating factor for inflation which converts our estimate into current year dollars. The "current year" in "current year dollars" does not refer to the year in which the estimate is made or any other single year. (Source: TARADCOM Economic Analysis Handbook.)

Deflator:

A special case of an index. Used to convert current year dollars to the equivalent value of a given base year. (Source: TARADCOM/TARCOM Inflation/Price Escalation Instructions, DRDTA-VC, Jan 78.)

Escalated Costs: (Inflated Costs)

Dollars adjusted by a price escalation factor or a price level index.

**Expenditure Profile:
(Outlay Rate)**

The time-phased estimate of a program's actual annual expenditures. Term may be applied to the expenditure of a given year's appropriation over time. (Source: TARADCOM/TARCOM Inflation/Price Escalation Instructions, DMDTA-VC, Jan 78.)

Factor:

A price or cost relative derived from an index for the purpose of escalating or de-escalating costs (base year factor - 1.00).

Index:

A numerical procedure for tracking cost changes over time. (Source: Technical Report No. 77-1, "An Introduction to Basic Theory and Their Application, with Sample Problems, "U.S. Army TSARCOM, Oct 77.)

Inflator:

An index used to convert given base year dollars to the equivalent value of a current year. (Source: USAF, Aeronautical Cost Indices, May 77.)

**Price Escalation
Factor:
(Inflation Index)**

A number which converts prior year actual prices to base year prices through use of a price level index.

TOA:

Total Obligation Authority.
(Source: AR 310-50, Nov 75, pg 74.)

Unescalated Costs:

Constant dollars unadjusted by a price escalation factor or a price level index.

Weighted Index:

An index reflecting the impact of an expenditure profile. (Source: USAF, Aeronautical Cost Indices, May 77.)

6.1 Research

Research includes all effort directed toward increased knowledge of natural phenomena and of the environment. The primary aim is to gain fuller knowledge and/or understanding of the hard sciences for example, physics, chemistry, biomedicine, engineering, and mathematics. It does not include the solving of behavioral and social science problems that have a clear direct military application, nor does it include the solving of human relations and factors which occur in conjunction with human use and acceptance in a man/group application to equipment, materiel, and/or systems. Research efforts result in an increased knowledge of natural phenomena and/or improved technology.

6.2 Exploratory Development

Exploratory development includes all effort directed toward solving specific military problems short of major developments projects. It may vary from fairly fundamental applied research to quite sophisticated prototype hardware, study, programming, and planning efforts. It would thus include studies and minor development efforts. The dominant characteristic is that the effort is pointed toward specific military problem areas with a view toward developing and evaluating the feasibility and practicability of proposed solutions and determining their parameters.

6.3 Advanced Development

Advanced development includes all projects that have progressed to developing hardware for experimental or operational test. It is characterized by line item projects, and program control is exercised on a project basis. Another descriptive characteristic is the design of the items being directed toward hardware for test or experimentation as opposed to items designed and engineered for eventual military service use.

6.4 Engineering Development

Engineering development includes those development projects being engineered for military service use but which have not yet been approved for procurement or operation. It is characterized by major line item projects; program control is exercised by reviewing individual projects.

(Source: Army Aviation RDT&E Plan, US Army Research and Technology Laboratories, Ames Research Center, Moffett, Field, CA, , October 1977.)

VIII. BIBLIOGRAPHY.

A. ASD Cost Research Report 110D, Aeronautical Cost Indices. Wright-Patterson Air Force Base, OH: Directorate of Cost Analysis, Comptroller, Aeronautical Systems Division, May 1977.

B. Campbell, H. G., Aerospace Price Indexes. R-568-PR, Santa Monica, CA: The RAND Corporation, December 1970.

C. Army Aviation RDT&E Plan, Fifth Edition. Moffett Field, CA: US Army Air Mobility R&D Laboratory, Ames Research Center (US Army Aviation Systems Command, St. Louis, MO), October 1976.

D. Army Aviation RDT&E Plan, Sixth Edition. Moffett Field, CA: US Army Research and Technology Laboratories, Ames Research Center (US Army Aviation Research and Development Command, St. Louis, MO), October 1977.

E. Army Aviation RDT&E Plan, Seventh Edition. Moffett Field, CA: US Army Research and Technology Laboratories, Ames Research Center (US Army Aviation Research and Development Command, St. Louis, MO), October 1978.

F. Army Aviation RDT&E Plan, Eighth Edition. Moffett Field, CA: US Army Research and Technology Laboratories, Ames Research Center (US Army Aviation Research and Development Command, St. Louis, MO), October 1979.

G. Mayfield, Jerry and Bruce A. Smith, "Technical Survey: Joining Technology for the 1980's," Aviation Week and Space Technology, Volume 12, Number 7, 18 February 1980.

H. Inflation Bibliography. St. Louis, MO: US Army Aviation Research and Development Command, Directorate for Plans and Analysis, Data Analysis and Control Division, 21 February 1983.

I. CH-47 Modernization Program (YCH-47D). St. Louis, MO: US Army Aviation Systems Command (Contract No. DAAJ01-76-C-0653), 4 June 1976.

J. Defense Indicators. Washington, DC: US Department of Commerce, Bureau of Economic Analysis, March 1978, pgs 4 and 16.

K. Design To Unit Production Cost (DTUEC) Report. Chapter entitled "Deflators", Hughes Helicopters, July 1978.

L. DF, Subject: BLACK HAWK Airframe and Engine Historical Inflation Indices. St. Louis, MO: US Army Aviation Research and Development Command (DRDAV-BD), CMT 2, 30 November 1979.

Y. Del Rossi, J.A., Measuring Price and Productivity Change in the Aircraft Industry. RM-5805-PR, Santa Monica CA: The RAND Corporation, April 1970.

Z. Measuring Price Changes of Military Expenditures. Washington, DC: US Department of Commerce, Bureau of Economic Analysis, June 1975.

AA. Measuring Price Changes of Military Expenditures; Executive Summary. Washington, DC: US Department of Commerce, Bureau of Economic Analysis, June 1975.

BB. Memorandum, subject: Material Composition Analysis of US Army Helicopters. St. Louis, MO: US Army Aviation Systems Command (AMSAV-CCE), 31 July 1973.

CC. Memorandum, subject: Some Observations Concerning Composite Index Weighting Problems. St. Louis, MO: US Army Aviation Systems Command (DRSAV-CC), 1 June 1976.

DD. Monthly Labor Review. Washington, DC: US Department of Labor, Bureau of Labor Statistics, November 1981.

EE. Shiskin, Julius, "A New Role for Economic Indicators," Monthly Labor Review. Washington, DC: US Department of Labor, Bureau of Labor Statistics, November 1977, pp. 3-5.

FF. National Survey of Professional, Administrative, Technical and Clerical Pay. Washington, DC: US Department of Labor Statistics, March 1982.

GG. Producer Prices and Prices Indexes Data (Formerly Wholesale Prices and Price Indexes). Washington, DC: US Department of Labor, Bureau of Labor Statistics, July 1978.

HH. RDT&E Program Data Sheet, IL263201D447. St. Louis, MO: US Army Aviation Research and Development Command, Advanced Systems, Technology and Integration Office, December 1977.

II. Survey of Current Business, Volume 58, Number 8. Washington, DC: US Department of Commerce, Bureau of Economic Analysis, August 1978.

JJ. Wille, H. Kevin and John M. Barnett, UH-60A BLACK HAWK Aircraft System Peculiar Historical Inflation Indices. USATSARGOM Cost Memorandum 83-11. St. Louis, MO: US Army Troop Support and Aviation Materiel Readiness Command, Comptroller, Cost Analysis Division, January 1983.

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APPENDIX B
Material Mix

	<u>PPI Code</u>	<u>PPI Series</u>	<u>Material Represented</u>	<u>Weight Factor</u>
(1)	07	Rubber & Plastic Products	Rubber and Plastics	.01
(2)	07	Rubber & Plastic Products	Fiberglass	.03
(3)	091401 ^{1/}	Paperboard, Container Board	Nomex	.10
(4)	10170711 ^{1/}	Steel Sheets, Cold Roll, Carbon	Steel Sheet, Flat	.125
(5)	10170751	Steel Sheets, Cold Roll, Stainless	Steel Sheet, Stainless	.125
(6)	10150153	Closed Die Forgings Alloy Steel (prior to Oct 81)	Closed Die Forgings	.05
	10151351 ^{2/}	Closed Die Forgings, Carbon Steel (after Oct 81)		
(7)	10220122	Cobalt	Cobalt Alloy	.04
(8)	10250101	Aluminum Sheet, Flat 5052-H32	Aluminum Sheet	.13
(9)	10250113	Aluminum Rod, Screw Machine Stock (prior to Feb 82)	Aluminum Rod, Screw Machine Stock	.03
	10250147 ^{3/}	Aluminum Rod, Extruded (after Feb 82)		
(10)	10250117	Aluminum Extrusion, Solid Circle Size, 4 to 5 (prior to Dec 81)	Aluminum Extrusions	.10
	10250153 ^{4/}	Aluminum Extrusion, Solid Circle Size, 4 to 5 (after Dec 81)		
(11)	102502	Copper & Brass Mill Shapes	Copper	.01
(12)	10250463	Monel Sheet, CR400 Alloy	Nickel Alloy	.23
(13)	10220156	Titanium Sponge (before Dec 70)	Titanium	.02
	102505 ^{5/}	Titanium Mill Shapes (after Dec 70)		

FOOTNOTES: ^{1/} Only the PPI number changed. Base year of series remained the same.

^{2/} Cobalt PPI was not reported during the period from Oct 81 through Jan 82, due to instability in the cobalt market. Conversations with BLS commodity specialist for cobalt indicate that the price was falling constantly during this timeframe, before stabilizing in Feb 82. Values for the series were assumed to reflect this market condition.

^{3/} 10250113 was last reported in Jan 82. 10250147 was selected as the most appropriate substitute, adjustments were made to account for differences in base years for the two series.

^{4/} 10250117 was renumbered and rebased in January 1982. The 10250153 was adjusted by a 3.093 factor to account for the change in base year.

^{5/} Titanium Mill Shapes adjusted by .955 factor to give continuity with Titanium Sponge.

COMMUNITY INDEX
1945 - 1946

13

COMMUNITY INFLATORS
1962 - 1968

16

APPENDIX E

HISTORICAL INFLATION INDICES

YEAR	LABOR	INFLATION	6.1/6.2 -25 LABOR -25 MATERIAL	6.3 -25 LABOR -25 MATERIAL	6.4 -25 LABOR -25 MATERIAL	OTHER -25 LABOR -25 MATERIAL
1968	2.488	3.257	2.672	2.7821	2.7327	2.7947
1969	2.484	3.151	2.5275	2.5485	2.5785	2.6596
1970	2.587	2.894	2.3221	2.3615	2.3987	2.4896
1971	2.146	2.7341	2.1948	2.2235	2.2538	2.3119
1972	2.845	2.6728	2.8778	2.1898	2.1483	2.2827
1973	1.926	2.659	1.9684	2.8832	2.8388	2.1894
1974	1.888	2.398	1.8384	1.8847	1.9153	1.9722
1975	1.7114	1.848	1.7183	1.7251	1.7328	1.7488
1976	1.688	1.7471	1.6157	1.6226	1.6275	1.6484
1977	1.588	1.648	1.5877	1.5898	1.5717	1.5886
1978	1.4813	1.5812	1.4931	1.4948	1.4885	1.5088
1979	1.588	1.488	1.3841	1.3854	1.3867	1.3892
1980	1.598	1.288	1.2712	1.2881	1.2858	1.2788
1981	1.589	1.8744	1.1887	1.1781	1.1724	1.1688
1982	1.8777	1.8286	1.8767	1.8748	1.8718	1.8831
1983	1.888	1.888	1.888	1.888	1.888	1.888

APPENDIX F 1/
DOD R&D/Pay Indices

	Base 68		Base 82	
	<u>R&D</u>	<u>Civ Pay</u>	<u>R&D</u>	<u>Civ Pay</u>
68	100	100	2.6064	2.9482
69	104.73	106.48	2.4887	2.7688
70	110.53	118.98	2.3581	1.4779
71	116.19	129.41	2.2432	2.2782
72	121.54	140.28	2.1445	2.1016
73	126.83	148.60	2.0550	1.9840
74	136.94	161.95	1.9034	1.8205
75	151.91	175.26	1.7157	1.6822
76	161.96	189.67	1.6093	1.5544
7T	166.60	195.27	1.5645	1.5098
77	170.93	206.48	1.5248	1.4279
78	182.54	222.66	1.4279	1.3241
79	197.88	236.00	1.3172	1.2492
80	216.47	252.09	1.2054	1.1695
81	242.23	274.00	1.0760	1.0760
82	260.64	294.82	1.0000	1.0000

FOOTNOTE: 1/ This table is derived from the DOD Deflators dated September 1982. The 1982 values are based on the OSD Inflation Guidance, dated January 1983.